

REMARKS

This Amendment is submitted in reply to the Office Action dated June 18, 2003. Applicants respectfully request reconsideration and further examination of the patent application under 37 C.F.R. § 1.111.

Upon entry of the foregoing Amendment, claims 1 - 35 remain in the application. The amendments are believed to introduce no new matter, and their entry is respectfully requested. Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider and withdraw all outstanding rejections.

Summary of First Office Action

I. Claim 1 - 4, 6 - 16, 18 - 21 and 23 - 33 were rejected under 35 U.S.C. 102(b) as being anticipated by Natarajan et al. U.S. Patent 5,790,070.

II. Claims 5 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan in view of Elson et al. U.S. Patent 6,317,100.

III. Claims 17 and 34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan in view of Hughes et al. GB233073.

Summary of Amendment

Claims 1, 12, 18 and 29 were amended to include an electronic scanning antenna; and deleted the language “one of an electronically steerable narrow antenna beam and a switchable antenna beam”. Support for the addition of an electronic scanning antenna can be found on page 9, line 18 and page 15, line 21. Claims 2, 6, 14, 19, 23, 26, 31 and 35 have been added.

Remarks regarding I:

Claims 1, 12, 18 and 29 were amended to include an electronic scanning antenna; and delete the language “one of an electronically steerable narrow antenna beam and a switchable antenna beam”. Claims 2, 6, 14, 19, 23, 26, 31 and 35 have been added and all of which include or depend from a claim that includes an electronic scanning antenna. Further, claim 35 requires that each node with which a dynamic communication link can be established have a scanning antenna.

Paratek, the assignee of the present invention are experts in the field of tunable materials that can be utilized in tunable phase shifters, electronic scanning antennas and the like. The technology of the present invention enables low cost scanning antennas and tunable phase shifters that enable dynamic communication link establishment between a large number of nodes and can be bi-directional. Natarajan provides a very high cost satellite communication network which coordinates multiple steerable satellite beams with user requests for connections requiring varying bandwidth in real-time. A control station gathers user requests for connections and transmits those requests to a satellite over an uplink. Because of the low cost and small size of the present scanning antenna of the present communication network, the communication can be bi-directional and does not require the use of an uplink. The bi-directional aspect of the present invention is claimed in claim 6.

Further, Natarajan provides that requests for bandwidth are processed in the satellite where time slot assignments and steerable beam schedules are determined in response to user requests. Steerable beam schedule and time slot assignments are transmitted to subscriber units and control station over a broadcast downlink.

The electronically steerable narrow antenna beam of Natarajan does not provide for a scanning antenna. Rather the electronically steerable narrow antenna beam of Natarajan is a digital beam forming antenna, not capable of scanning as now set forth and claimed in the present invention.

This scanning antenna, which has the ability to provide continuous scanning as set forth in claim 2, is enabled by the research and development efforts of the assignee of the present invention through years of research and development. Thus, Applicants submit that the rejection of independent claims 1, 12, 18 and 29 has been traversed as all of the independent claims now require the scanning antenna aspect of the present invention; and as all of the dependent claims depend therefrom, it is submitted that the rejection of the remaining dependent claims has been traversed as well.

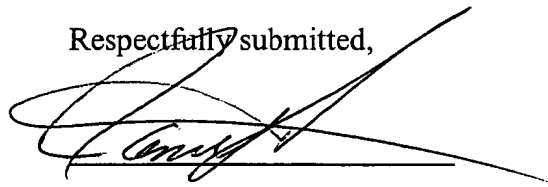
CONCLUSION

From the foregoing, Applicants respectfully submit that all of the stated grounds of rejections have been properly traversed, accommodated, or rendered moot. Accordingly, Applicants respectfully request that the application is in condition for allowance and respectfully request such action.

If the Examiner believes, for any reasons, that personal communication will expedite prosecution of this application the Examiner is invited to telephone the undersigned at the following number: 202-607-4607.

The USPTO is authorized to charge Deposit Account No. 502697 any fees associated with this response.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'James S. Finn', is written over a horizontal line.

James S. Finn
Reg. No. 38,450

8650 Southwestern Blvd. #2825
Dallas, Texas 75206-2688
202/607-4607